



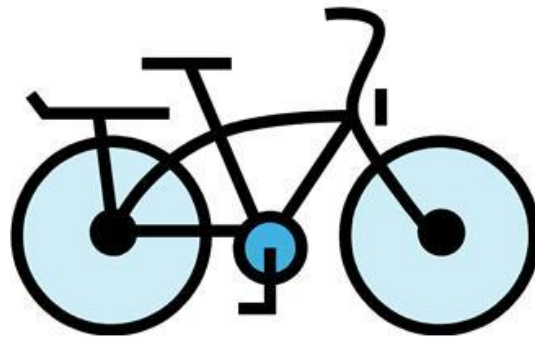
*Endorsed by the
Wichita City Council
April 5, 2011*



Delano West Douglas Avenue Bicycle Parking Plan

City of Wichita

Approved by the Delano West Douglas Avenue Bicycle
Parking Plan Steering Committee on March 11, 2011





Acknowledgements

Steering Committee

The Steering Committee guided the development of the Delano West Douglas Avenue Bicycle Parking Plan, ensuring that the plan document meets the needs of current and future community stakeholders. The Steering Committee was comprised of the following citizens.

Name	Organization
Kali Day	Delano Business Association
Shelly Stilger	Delano Business Association
Jim Martinson	Historic Delano
Nancy Lawrence	Historic Delano
Ronn Houtz	Delano Neighborhood Association
Karen Cravens	Delano Neighborhood Association
Eric Riedell	Coasters Bicycle Club

Technical Advisory Committee

The Technical Advisory Committee assisted the Steering Committee by providing technical expertise and information during the development of the plan. The Technical Advisory Committee was comprised of the following representatives.

Name	Organization
Kathy Morgan	Wichita-Sedgwick County MAPD
Denise Peters	City Manager Office, City of Wichita
Michelle Stroot	Wichita Transit
Paul Gunzelman	Public Works Department, City of Wichita
Dave Barber, AICP	Wichita-Sedgwick County MAPD
Scott Wadle, AICP	Wichita-Sedgwick County MAPD
John D'Angelo	City Manager Office, City of Wichita
Cynthia Berner-Harris	Wichita Public Library



RESOLUTION NO. 11-056

A RESOLUTION ENDORSING THE DELANO WEST DOUGLAS AVENUE BICYCLE PARKING PLAN, MARCH 11, 2011.

WHEREAS, Delano area stakeholders approached the City of Wichita with a request for assistance to create a bicycle parking plan for Delano; and

WHEREAS, the City of Wichita adopted the Delano Neighborhood Revitalization Plan in 2001, with the vision of "Re-creating a quality city center neighborhood desirable for quality living and working based on the preservation and enhancement of existing character.", and

WHEREAS, the City Council of the City of Wichita recognizes the importance of having a plan to guide the provision of public bicycle parking in Delano in order to contribute to a high quality of life and unique sense of place/identity for the area, and

WHEREAS, the City of Wichita has worked in partnership with Delano community stakeholders in the development of a bicycle parking plan for a portion of the Delano Neighborhood: north to the former railroad corridor, east to McLean Boulevard, west to Seneca street and one half block south of Douglas to the south, and

WHEREAS, the *Delano West Douglas Avenue Bicycle Parking Plan, March 11, 2011* represents the culmination of that planning process, with both a vision and recommended actions; and

WHEREAS, the Delano West Douglas Avenue Bicycle Parking Plan, March 11, 2011 is only a guide, does not commit the City to funding any of the recommendations contained within the Plan, and separate actions by the City Council will be necessary to fund the recommended actions.

NOW, THEREFORE BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF WICHITA, KANSAS:

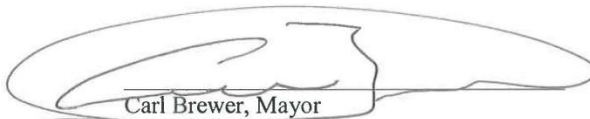
Section 1. The City Council of the City of Wichita endorses the *Delano West Douglas Avenue Bicycle Parking Plan, March 11, 2011*

Section 2. The City of Wichita shall use the *Delano West Douglas Avenue Bicycle Parking Plan, March 11, 2011* to guide the provision of public bicycle parking within the Plan boundaries.


ADOPTED by the governing body of the City of Wichita, Kansas, this 5th day of April, 2011.

CITY OF WICHITA, KANSAS






Carl Brewer, Mayor

ATTEST:


Karen Sublett, City Clerk
(SEAL)

Approved as to Form:


Gary E. Rebenstorf, Director of Law




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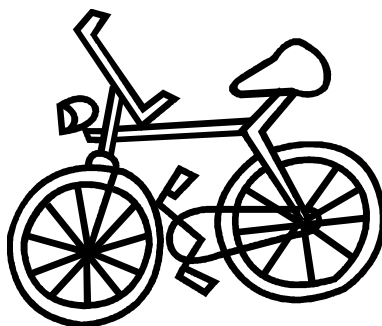
Executive Summary

The Delano Neighborhood Revitalization Plan (adopted by the City of Wichita in 2001) provides the following vision statement for the Delano Neighborhood. “Re-creating a quality city center neighborhood desirable for quality living and working based on the preservation and enhancement of existing character.” In order to help achieve that vision, Delano stakeholders have developed this plan to guide the provision of public bicycle parking. The provision of public bicycle parking will improve the quality of living and working by making bicycling safer and more convenient, while also reducing damages to property and obstructions for pedestrians.

This plan recommends the installation of 120 on-street bike racks within the Plan area, and 15 off-street bike racks at Lawrence-Dumont Stadium. The total estimated cost of to purchase and install the 135 bike racks is \$72,000. It is recommended that the installation be divided into nine (9) phases, in order to phase funding, allow for review of usage, and adjustments to future improvements if necessary. It is also recommended that the City schedule funding for 100 percent of the costs, and that Delano stakeholders seek non-City contributions to fund the purchase and installation of the bike racks. The non-City funding can be utilized to expedite the purchase and installation of the bicycle racks.

Following the installation of the phase I bike racks, it is recommended that an artist be consulted to identify options for installing vehicle charging stations and/or artistic bike racks prior to the implementation of phase II and subsequent phases. The vehicle charging stations/artistic bike racks should be substituted for the Delano Bollard bike racks in key locations, to be determined.

It is also recommended that the proposed new Central Branch Library facility designs include bicycle parking. Beyond the physical improvements, additional recommendations are included within this plan to help ensure that the Plan continues to be relevant to the community and that it is successfully implemented.





Chapter 1: Introduction

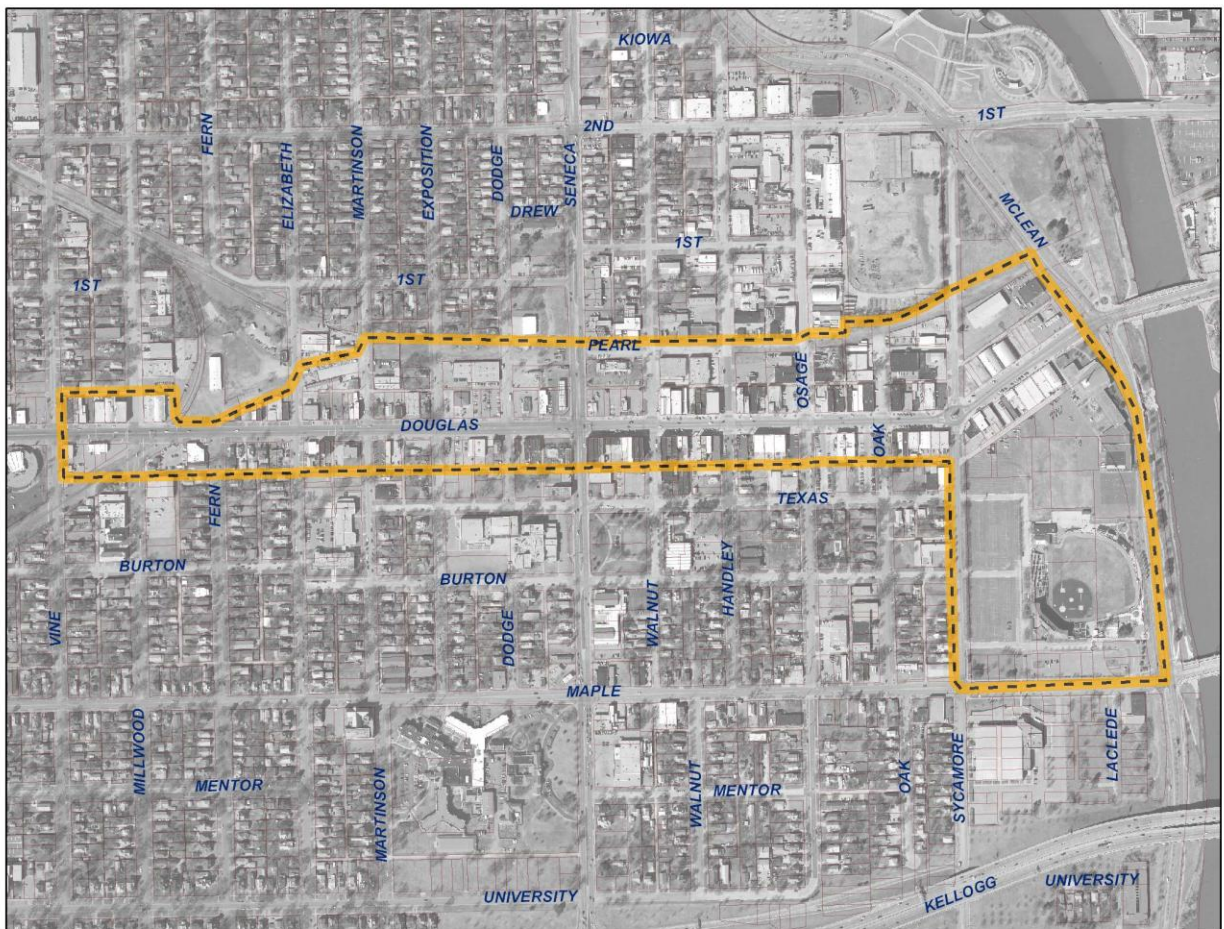
Plan Purpose

This Delano West Douglas Avenue Bicycle Parking Plan (Plan) was initiated by Delano residents and business owners who identified a need for public bicycle parking in order help prevent damage to property and traffic hazards that result from bicycles that are inappropriately parked due to a lack of public bicycle parking spaces. The Plan is a guide for the provision of public bicycle parking along West Douglas Avenue. It recommends public bicycle parking locations, configurations, designs, and funding methods.

Plan Boundaries

The geographic boundaries of the plan area are the former railroad corridor to the north, McLean Boulevard to the east, Seneca Street to the west, and a half block south of Douglas Avenue to the south.

Map 1: Plan Boundaries





Plan Development Process

This Plan was developed by the citizen member Delano West Douglas Avenue Bicycle Parking Plan Steering Committee during an eight (8) month process. The Steering Committee developed the Plan with input from citizens, City committees, and assistance from a Technical Advisory Committee of Wichita City staff. The process included an inventory of the existing conditions, and two open house events for public input.

Existing Conditions Analysis Summary

The Plan area lacks bicycle parking facilities. The lack of secure bicycle parking discourages the use of bicycles for transportation purposes; and results in ad-hoc bicycle parking that blocks sidewalks and damages property. The plan area has many attributes that make it an attractive area to ride a bicycle: mixed-uses, small blocks, high density of intersections, location adjacent/within Downtown Wichita, and nearby existing bike paths. City plans recommend future improvements that will increase the attractiveness of the area for riding bicycles: new on-street bicycle facilities, a new bike path, a new Central Branch Library, improved transit service, and creation of a mixed-use urban village.



Figure 1: Bad Bicycle Parking Photo (Credit - Eric Riedell)

The eastern portion of the Delano West Douglas Avenue Bicycle Parking Plan area, from McLean Boulevard to Seneca Street is located within the boundaries of the recently adopted Downtown Wichita Streetscape Design Guidelines (illustrated on the following graphic). The streetscape guidelines provide “a set of cohesive design principles for future street improvements”. They provide recommendations for both the location, design, and quantity of bike racks within Downtown Wichita (including portions of Delano). Using the formulas presented in the Downtown Wichita Streetscape Design Guidelines, staff estimate that between 430 and 503 bicycle parking spaces are recommended for the Plan area.

As of October 2010 the plan area included three privately owned bike racks with spaces for approximately 10 bikes, and one public bike rack at Lawrence Dumont Stadium with space for



approximately four (4) bikes. In late 2010, Wichita Transit installed nine (9) bike racks within the plan area and plans to install an additional six in early 2011. The Wichita Transit bicycle parking will provide 30 bicycle parking spaces within the plan area. Despite recent improvements, significant portions of the plan area lack the recommended amount of public bicycle parking places.

Map 2: Downtown Wichita Streetscape Design Guidelines - District Boundaries

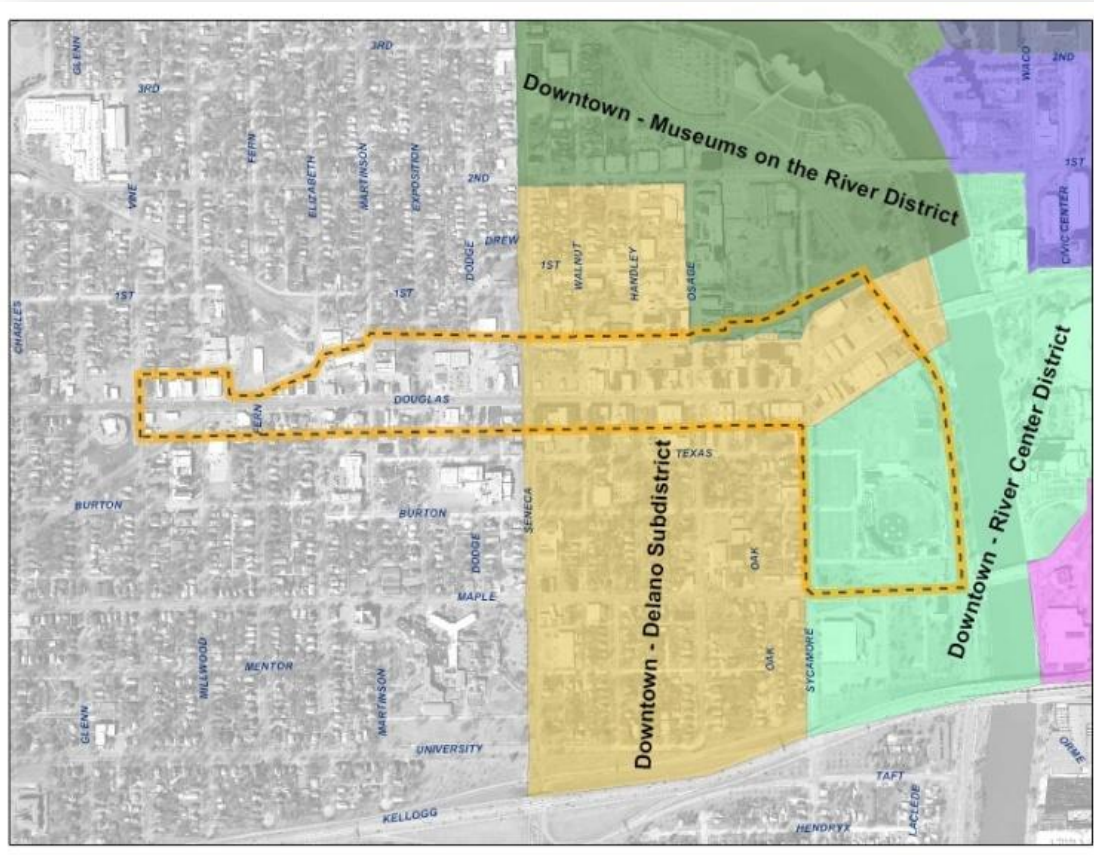






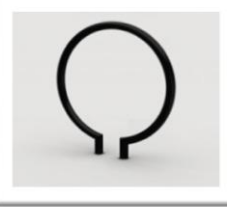


Table 1: Downtown Wichita Streetscape Design Guideline District / Sub-Districts and Recommended Style Groups

District/Sub-district	Style Group
Downtown – Museums on the River District	Artistic
Downtown – River Center District	Contemporary
Downtown – Delano Sub-district	Traditional

Table 2: Downtown Wichita Streetscape Design Guidelines Recommended Bike Rack Designs

Traditional	Contemporary	Artistic
<p>Classic Bollard with Ball Cap</p> 	<p>Bola</p> 	<p>Cyc Bicrac</p> 
<p>Inverted U / Cycle Sentry</p> 	<p>Orion Square</p> 	<p>Highwheeler</p> 
	<p>Ring</p> 	



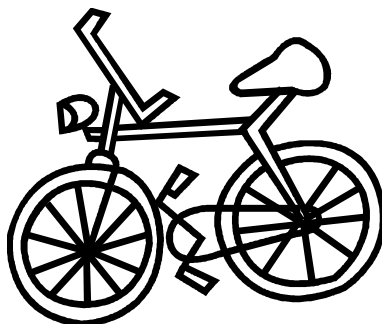
Chapter 2: Vision

The Delano Neighborhood Revitalization Plan, adopted by the Wichita City Council in 2001, provides the following vision for the Delano Neighborhood. “Re-creating a quality city center neighborhood desirable for quality living and working based on the preservation and enhancement of existing character.”

Reflecting this vision, the Steering Committee developed the following vision statement to describe what the public bicycle parking and the plan area will be like after the plan actions have been implemented. It is a broad general statement that provides the framework for this document by identifying key elements and conditions.

We envision that in the year 2020 the safety and convenience of cycling in Delano will significantly contribute to a high quality of life and unique sense of place/identity for the area. Delano will become a destination for casual cyclists, with increasing property values and more retail sales. The safety and convenience of cycling in Delano will be greatly improved through the phased installation of well maintained, secure, and convenient bicycle parking throughout the plan area. The amount of bicycle parking will be adequate to meet the bicycle parking needs, will not obstruct pedestrian travel, will help prevent property damage, will encourage multi-modal transportation, and will be designed to complement the desired area aesthetics. Public and private funding will be utilized to fund the provision of bicycle parking.

The vision statement is the heart of this Plan. The following contents of this document describe recommendations to realize the vision.





Chapter 3: Strategies

The following public bicycle parking strategies are recommended for the Plan area in order to make the vision a reality.

Strategy I. On-Street Bicycle Parking

It is recommended that the City of Wichita ensure that adequate on-street public bicycle parking is provided, based on information from the [Downtown Wichita Streetscape Design Guidelines](#) (2010).

Design

It is recommended that all of the City on-street bike racks within the Delano West Douglas Avenue Bicycle Parking Plan boundaries utilize the Delano Bollard bicycle rack, a custom design that consists of a Classic Bollard with Ball Cap design that has been modified to include the Delano sidewalk marker (illustrated in the following graphic). The custom design will be an enduring and functional representation of the unique history and character of Delano. It will enhance the sense of place and the Delano brand, increasing its marketability as a unique destination. The recommended custom design is should be utilized as a substitute for the traditional style bicycle racks recommended in the [Downtown Wichita Streetscape Design Guidelines](#).

It is also recommended that options for installing vehicle charging stations and/or artistic bike racks be developed through consultation with an artist. The consultation should review the design work previously developed as part of the West Douglas Streetscape. The vehicle charging stations and/or artistic bike racks should be substituted for the Delano Bollard bike racks in key locations, to be determined.

Color

It is recommended that the on-street bike racks be black in color to match the existing streetscape elements.

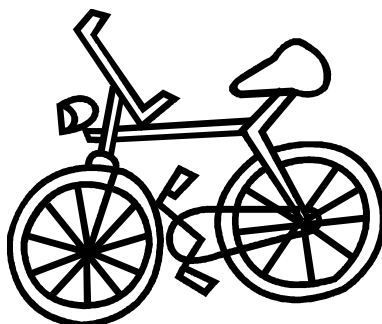


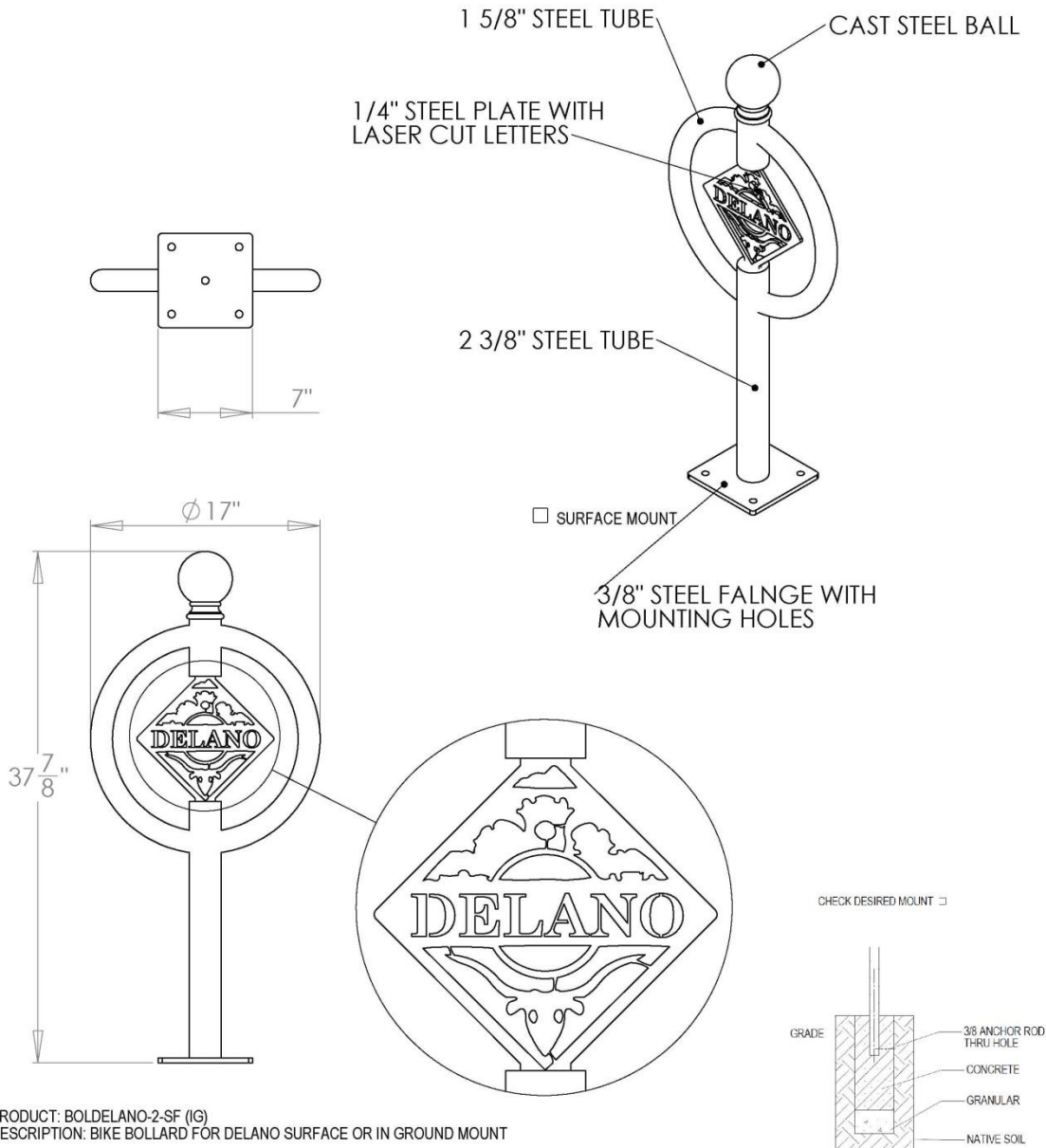


Figure 2: Delano Bollard Bike Rack Design, Madrax



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PRODUCT: BOLDELANO-2-SF (IG)
DESCRIPTION: BIKE BOLLARD FOR DELANO SURFACE OR IN GROUND MOUNT

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ENG: BLW

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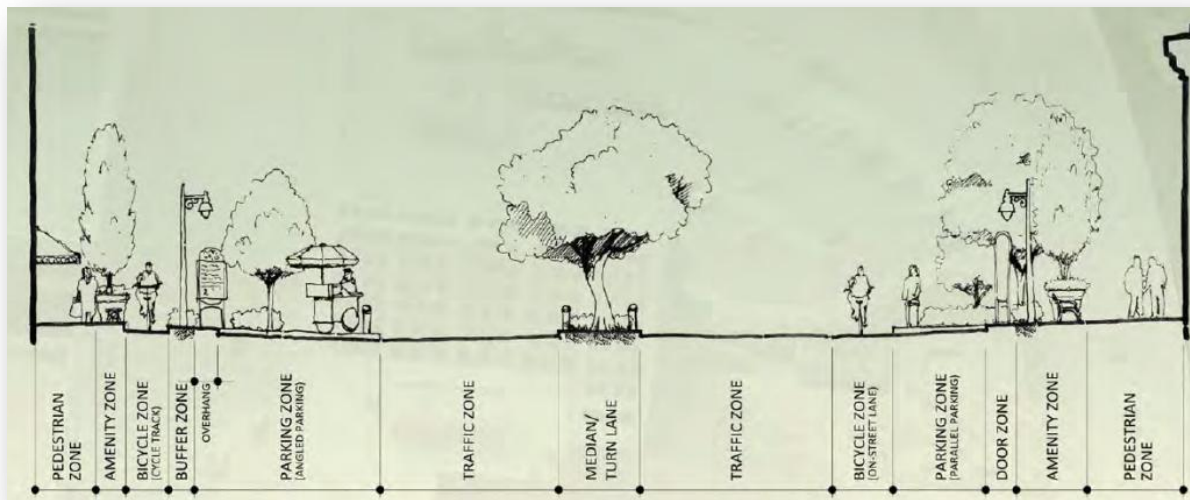
1. INSTALL BIKE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. CONSULTANT TO SELECT COLOR(FINISH). SEE MANUFACTURER'S SPECIFICATIONS.
3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.



Location

It is recommended that the bike racks be located within the street amenity zone, as identified by the [Downtown Wichita Streetscape Design Guidelines](#). Furthermore, it is recommended that the bike racks be located primarily to front onto Douglas Avenue, rather than the side streets. The bike racks should be placed so that any properly parked bicycles will not encroach upon the pedestrian zone. Maps showing the recommended locations for the installation of bike rack and their relationship to other planned streetscape improvements are included later in this document.

Figure 3: General Street Sections, Downtown Wichita Streetscape-Design Guidelines



Quantity

It is recommended that the City of Wichita install 120 on-street bicycle racks within the Delano West Douglas Avenue Bicycle Parking Plan boundaries. Combined with the 15 Wichita Transit bike racks (providing two bicycle parking spaces each), the Plan area will contain approximately 135 public bike racks (or 270 bicycle parking spaces). This is approximately 160 bicycle parking spaces less than the “acceptable” quantity of 430 public on-street bicycle parking spaces recommended in the [Downtown Wichita Streetscape Design Guidelines](#). The number of bicycle parking spaces is a result of the Steering Committee only recommending bike racks in locations where current existing land uses and transportation patterns are likely to result in the use of the bicycle parking facilities.

The calculations and illustrations of the number of recommended bicycle parking space based on the [Downtown Wichita Streetscape Design Guidelines](#) are provided in Appendix A: Streetscape Design Guidelines Recommended Number of Bicycle Parking Spaces Estimates. If transit services are provided along any of the streets in the plan area, then the number of bicycle parking spaces should be increased to reflect the transit multiplier identified in the [Downtown Wichita Streetscape Design Guidelines](#) when the use of the existing public bicycle parking facilities warrants such an investment.



Configuration

Douglas Avenue

It is recommended that along Douglas Avenue, where possible, the bike racks be evenly spaced within the amenity zone – similar to the locations of parking meters. If the evenly spaced configured is not possible, then the next most preferred configuration for the bicycle parking is to have the bike racks in cluster formations within the street amenity zone. Whenever possible, the bike racks should be placed at an angle or perpendicular to the roadway, in order to ensure the greatest ease for pedestrians walking from the roadway to the buildings. The racks should be installed so that the bicycles will not encroach on the 6-foot wide “acceptable width” pedestrian zone as defined by the Downtown Wichita Streetscape Design Guidelines.



Figure 4: Example of Evenly Spaced Bicycle Parking Formation



Figure 5: Example of Cluster Bicycle Parking Formation

North/South Streets

It is recommended that along the plan area north/south streets, wherever possible, the bike racks should be installed in a cluster formation nearest to Douglas Avenue. If the cluster formation is not possible, then the next most preferred configuration for the bicycle parking is to have the bike racks evenly spaced within the amenity zone – similar to the locations of parking meters.

Cost

Using an estimate of \$500 per rack (materials and installation) for the custom Delano Bollard, project staff estimate that installing the recommended 120 on-street bike racks will cost approximately \$60,000. At this time, no estimates for the vehicle charging stations and/or artistic bike racks have been determined. The substitution of these racks for the Delano Bollard may affect the project costs.

Priority

It is recommended that the City install the bike racks in phases. This will allow for the City to make a smaller initial investment, monitor the use of the bike racks, and verify the need for additional racks at specific locations. The recommended sequential order based on block street frontage is presented in the following map (see Map 3: Recommended Public Bike Rack Installation Sequence). The block street frontage priority was established using public feedback that the Steering Committee received during the planning process. The priority ranking goes from 1 to 9, with 1 being the highest priority location. It is recommended that half of the bike racks on the priority 1 & 2 blocks should be installed the first phase.

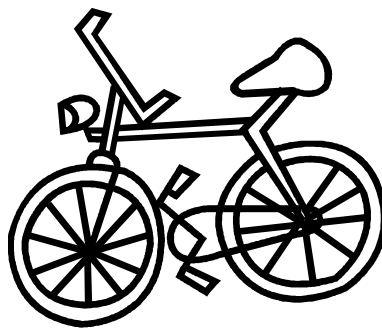


and the second half in the second phase, then the installation should proceed with sequence 3, 4, and so forth. The amount of bike racks in each phases is described in the table below.

The design of vehicle charging stations and/or artistic bike racks should be completed prior to the implementation of phase 2 and the resulting bike rack designs incorporated into subsequent phases. This sequence of events is recommended in order to accommodate the immediate need for on-street bicycle parking.

Table 3: Bike Racks per Phase

Sequence / Phase	Number of Bike Racks	Estimated Cost per Unit	Total Estimated Per Phase
1	26	500	\$ 13,000
2	24	500	\$ 12,000
3	15	500	\$ 12,000
4	13	500	\$ 6,500
5	12	500	\$ 6,000
6	10	500	\$ 5,000
7	13	500	\$ 6,500
8	12	500	\$ 6,000
9	10	500	\$ 5,000
	135		\$ 72,000



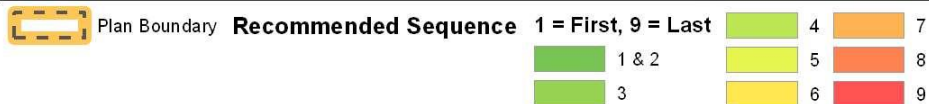


Map 3: Recommended Public Bike Rack Installation Sequence

Delano West Douglas Avenue Bicycle Parking Plan

2/1/2011

Recommended Public Bike Rack Installation Sequence





Map 4: Recommended Bike Rack Locations Vine to Millwood

Delano West Douglas Avenue Bicycle Parking Plan

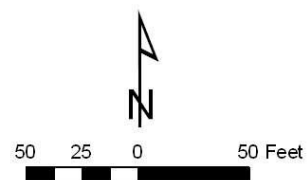
Recommended Bike Rack Locations - Vine Street to Millwood Avenue

1/30/2011



- Bike Racks
STATUS, MODEL, OWNER**
- ▲ Existing, Various, Private Owner
 - ★ Existing, U-Rack, Transit
 - Recommended, Custom, City of Wichita

 Plan Boundary



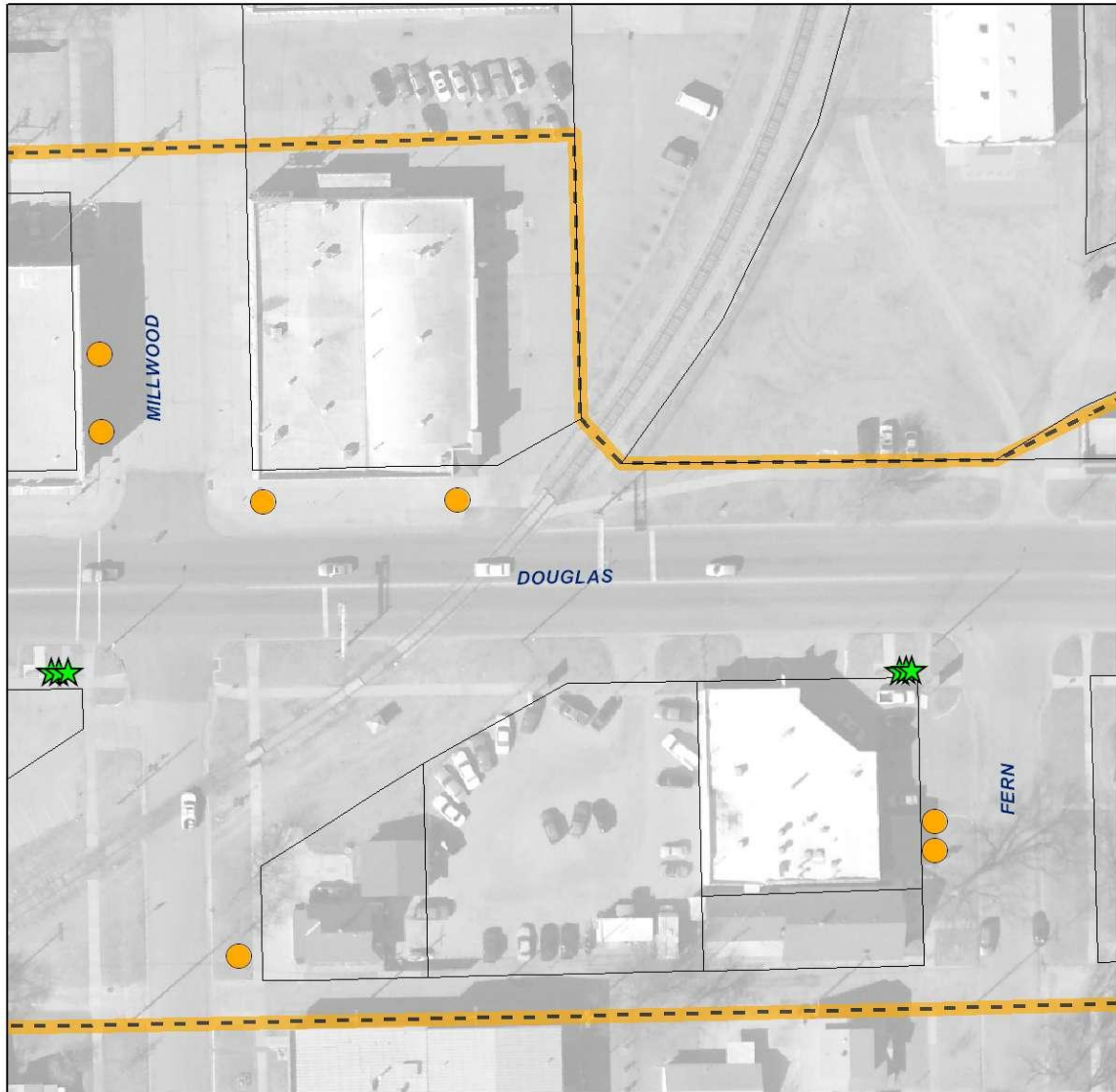


Map 5: Recommended Bike Rack Locations Millwood to Fern

Delano West Douglas Avenue Bicycle Parking Plan

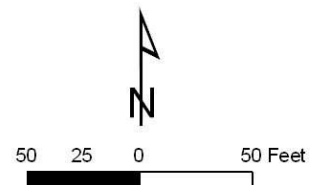
1/30/2011

Recommended Bike Rack Locations - Millwood Avenue to Fern Street



- Bike Racks**
STATUS, MODEL, OWNER
- Existing, Various, Private Owner
 - Existing, U-Rack, Transit
 - Recommended, Custom, City of Wichita

Plan Boundary





Map 6: Recommended Bike Rack Locations Fern to Elizabeth

Delano West Douglas Avenue Bicycle Parking Plan

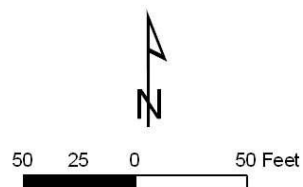
Recommended Bike Rack Locations - Fern Street to Elizabeth Street

1/30/2011



- Bike Racks**
STATUS, MODEL, OWNER
- ▲ Existing, Various, Private Owner
 - ★ Existing, U-Rack, Transit
 - Recommended, Custom, City of Wichita

— Plan Boundary



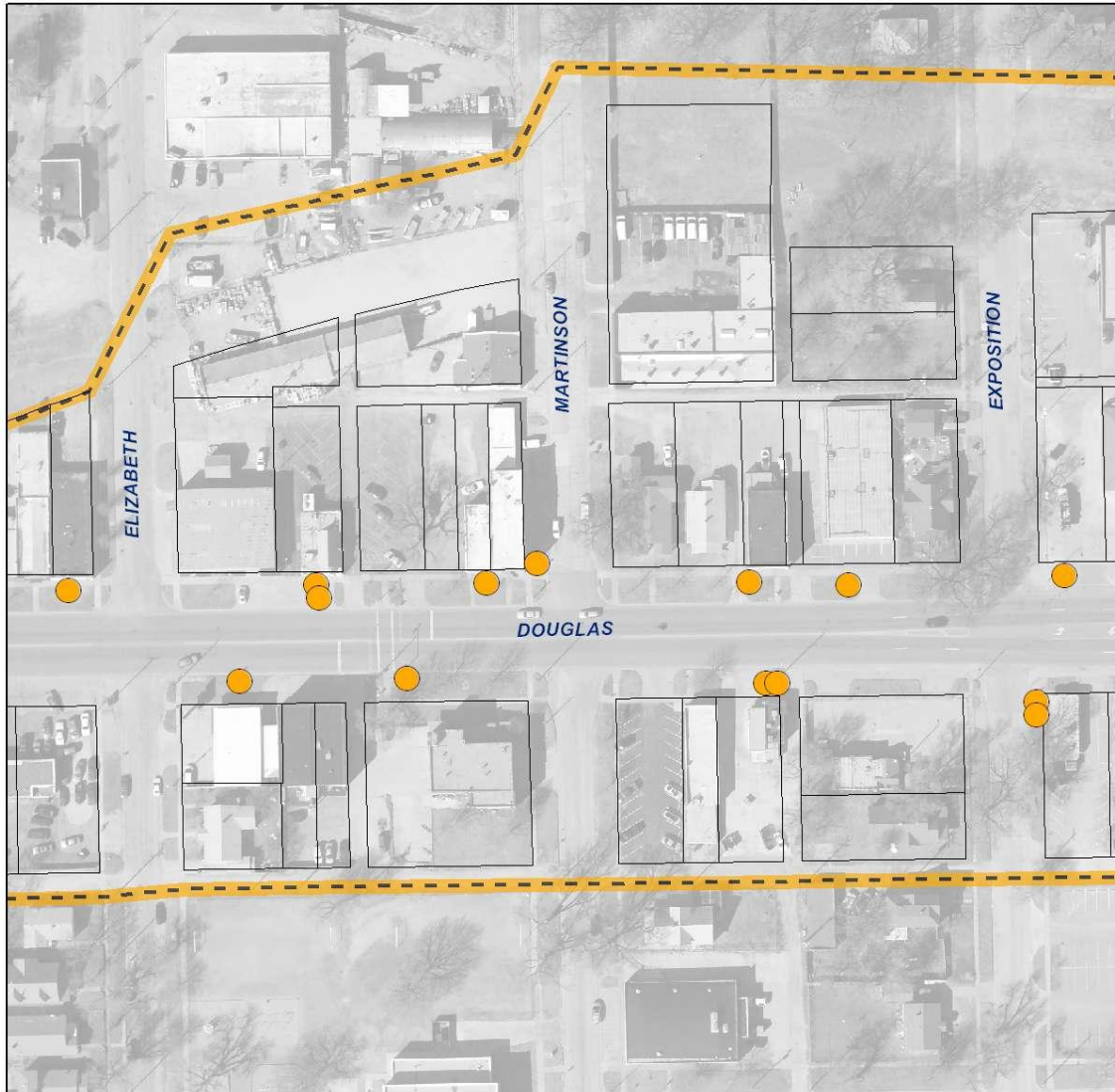


Map 7: Recommended Bike Rack Locations Elizabeth to Exposition

Delano West Douglas Avenue Bicycle Parking Plan

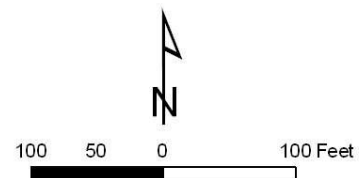
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Recommended Bike Rack Locations - Elizabeth Street to Exposition Avenue



- Bike Racks**
STATUS, MODEL, OWNER
- ▲ Existing, Various, Private Owner
 - ★ Existing, U-Rack, Transit
 - Recommended, Custom, City of Wichita

Plan Boundary



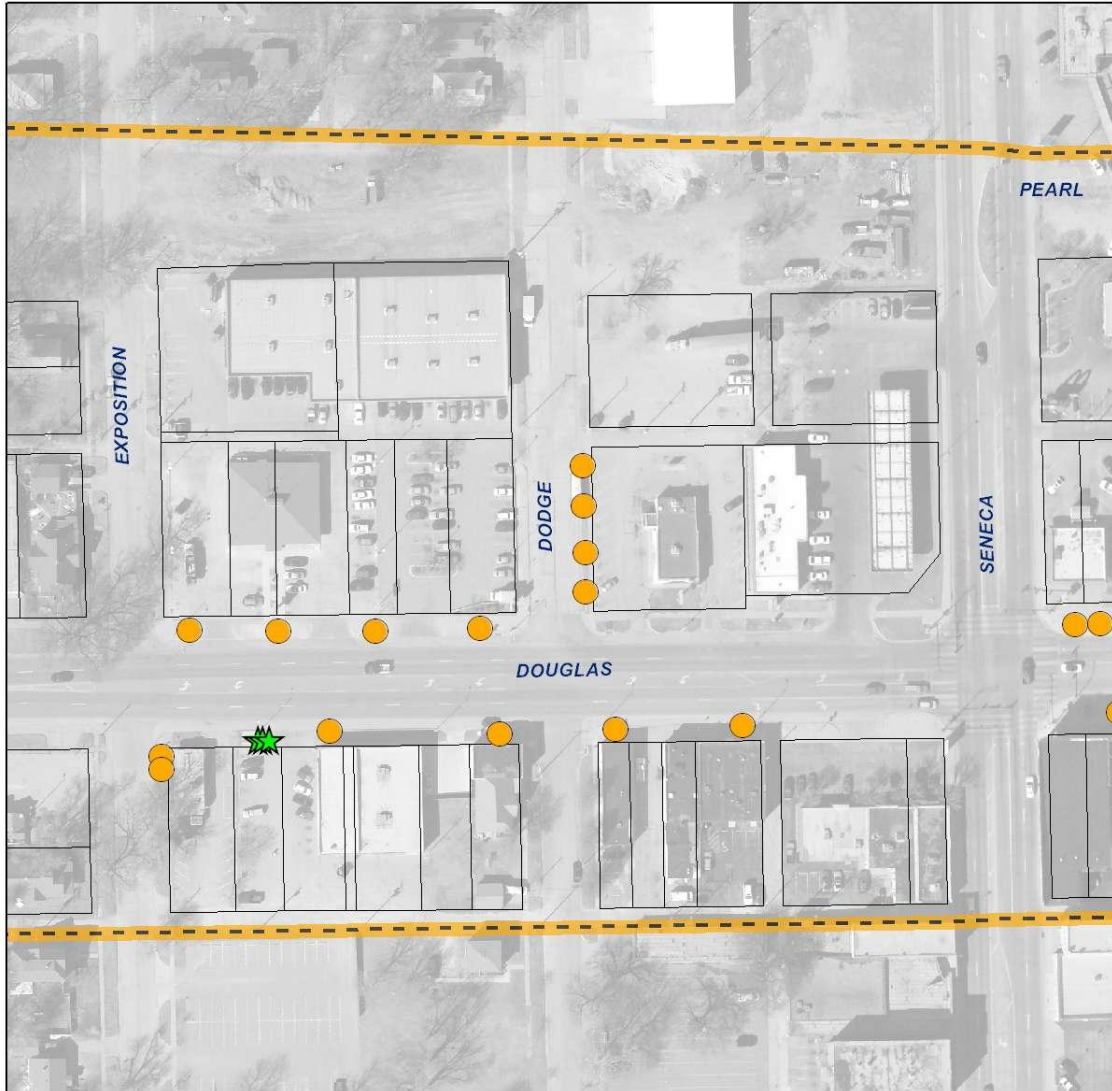


Map 8: Recommended Bike Rack Locations Exposition to Seneca

Delano West Douglas Avenue Bicycle Parking Plan

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Recommended Bike Rack Locations - Exposition Avenue to Seneca Street



Bike Racks

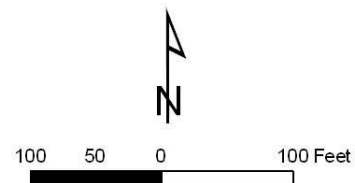
STATUS, MODEL, OWNER

▲ Existing, Various, Private Owner

★ Existing, U-Rack, Transit

● Recommended, Custom, City of Wichita

Plan Boundary



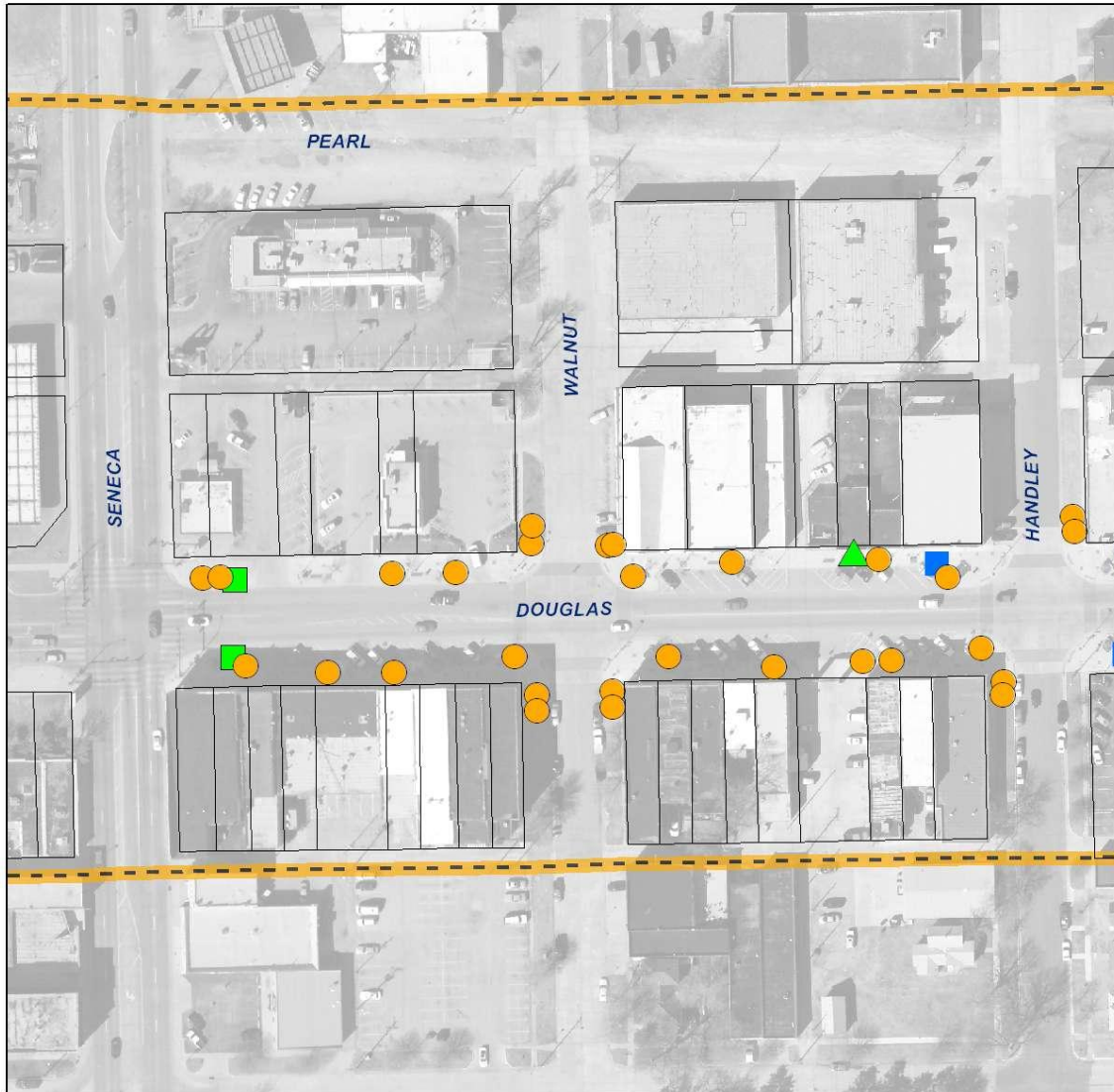


Map 9: Recommended Bike Rack Locations Seneca to Handley

Delano West Douglas Avenue Bicycle Parking Plan

1/30/2011

Recommended Bike Rack Locations - Seneca Street to Handley Street



Bike Racks
STATUS, MODEL, OWNER

Plan Boundary

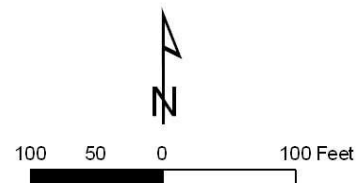
Existing, Various, Private Owner

Existing, U-Rack, Transit

Recommended, Custom, City of Wichita

Planned Interpretive Markers

Planned Roadway Arches





Map 10: Recommended Bike Rack Locations Handley to Oak

Delano West Douglas Avenue Bicycle Parking Plan

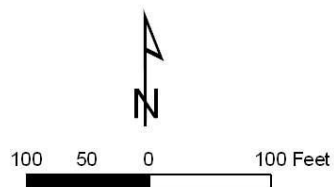
1/30/2011

Recommended Bike Rack Locations - Handley Street to Oak Street



- Bike Racks**
STATUS, MODEL, OWNER
- ▲ Existing, Various, Private Owner
 - ★ Existing, U-Rack, Transit
 - Recommended, Custom, City of Wichita
 - Planned Interpretive Markers
 - Planned Roadway Arches

Plan Boundary





Map 11 Recommended Bike Rack Locations Oak to Sycamore

Delano West Douglas Avenue Bicycle Parking Plan

1/30/2011

Recommended Bike Rack Locations - Oak Street to Sycamore Street

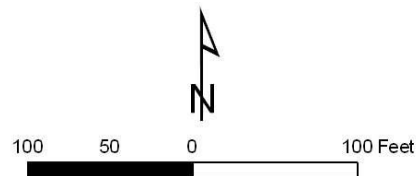


Bike Racks

STATUS, MODEL, OWNER

-  Existing, Various, Private Owner
-  Existing, U-Rack, Transit
-  Recommended, Custom, City of Wichita
-  Planned Interpretive Markers
-  Planned Roadway Arches

 Plan Boundary





Map 12: Recommended Bike Rack Locations Sycamore to McLean

Delano West Douglas Avenue Bicycle Parking Plan

1/30/2011

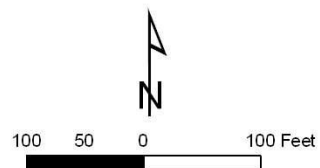
Recommended Bike Rack Locations - Sycamore Street to McLean Boulevard



Bike Racks
STATUS, MODEL, OWNER

- ▲ Existing, Various, Private Owner
- ★ Existing, U-Rack, Transit
- Recommended, Custom, City of Wichita
- Planned Interpretive Markers
- Planned Roadway Arches

Plan Boundary





Strategy II: Off-Street Bicycle Parking

It is recommended that the City of Wichita install off-street public bicycle parking at the proposed new Central Library, and upgrade the off-street public bicycle parking at Lawrence Dumont Stadium. The provision of high quality public bicycle parking at each of the regional attractions will help to ensure that cycling in the Delano area is safe, convenient, and attractive for casual cyclists.

Design

The public bicycle parking should be designed to meet the demand associated with the library and stadium. This includes meeting both short-term and long-term bicycle parking needs. Short-term bicycle parking facilities accommodate those who expect to park their bicycle for less than two (2) hours. Long-term bicycle parking facilities accommodate those who expect to leave their bicycle parked for more than two (2) hours (i.e. employees). The long-term bicycle parking facilities provide a greater level of security and protection from the weather; and may also include access to showers and changing rooms.

It is recommended that the design of the short-term bike racks follow those proposed in the Downtown Wichita Streetscape Design Guidelines. The Lawrence-Dumont Stadium bike racks should be from the contemporary streetscape style group. The new bike racks at Lawrence-Dumont can replace the existing schoolyard grid style bike rack, which is difficult to secure bicycles to. The designs utilized at the proposed new Central Library should be from the artistic streetscape style group. This Plan does not recommend specific long-term bicycle parking facilities, because the facility solutions may be very unique in order to meet the unique needs of the library and stadium.

Location

It is recommended that the off-street bicycle parking be located along a major building approach line so that they are clearly visible from the approach and no more than a 30-second walk (120 feet) from the entrance that it serves, as recommended by the Association of Pedestrian and Bicycle Professionals (APBP) (Association of Pedestrian and Bicycle Professionals, 2002).

Quantity

It is recommended that the City identify locations where bicycle parking consistent with LEED standards could be provided, and initially install approximately 10 percent of the recommended short-term bike racks. The LEED standards for bicycle parking recommend that short-term bicycle parking accommodate 5 percent of peak occupants, and long-term bicycle parking facilities to accommodate 0.5 percent of full-time occupants (U.S. Green Building Council, 2009). Installing 10 percent of the recommended short-term bike racks improves the safety and convenience of cycling, while also providing opportunities to monitor the use of the bicycle parking prior to making a more substantial investment.

- Lawrence-Dumont Stadium accommodates a sell-out crowd of 6,111 persons. Using this as the peak number of occupants, the recommended number of bicycle parking spots equals approximately 305 spaces = $(.05 \times 6,162)$, or approximately 151 bike racks (assuming 2 parking spaces per rack). It is recommended that only 10 percent of the LEED standard short-term



bicycle parking be installed initially (15 racks), accommodating approximately 30 bicycle parking spaces.

- Eight full-time employees work at Lawrence-Dumont Stadium. Based on the LEED standards, long-term bicycle parking should be provided for .05 percent of full-time employees. In this case it results in less than one long-term bicycle parking space needed.
- The proposed new Central Branch Library planning process is still underway and the amount of recommended bicycle parking, based on the LEED standards, cannot yet be calculated.

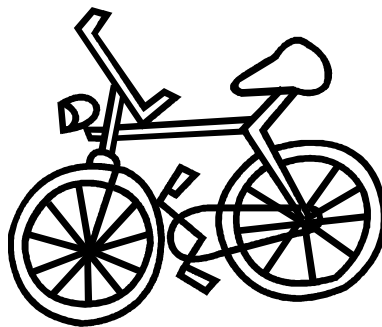
Configuration

It is recommended that the short-term bicycle parking be configured in a way that is consistent with the APBP Bicycle Parking Guidelines, including 30" spacing of racks (measured from the center of each rack), 48" aisles, and 72" to accommodate the length of the bicycle (Association of Pedestrian and Bicycle Professionals, 2002).

Cost

It is estimated that the cost to purchase and install each short-term bicycle rack, using the designs recommended in the Downtown Wichita Streetscape Design Guidelines, is approximately \$800 per rack at Lawrence Dumont Stadium, and approximately \$1,000 per rack at the proposed new Central Branch Library.

At \$800 per rack, the cost of installing the recommended 15 racks with a total of 30 bicycle parking spaces at Lawrence-Dumont Stadium is estimated to be approximately \$12,000 = ((30 spaces / 2 spaces per rack) * (\$800)).



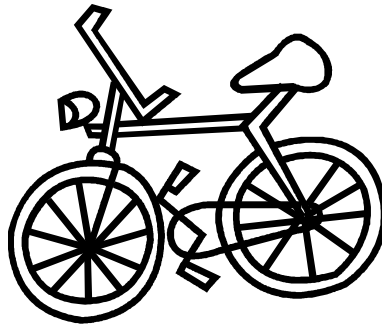


Strategy III: Relevant Planning

It is recommended that the Plan Steering Committee and the City of Wichita ensure that the Plan continues to address community needs and that the recommended actions are implemented.

Cost

No direct funding is necessary to undertake this strategy, staff time and related supplies will be necessary.





Chapter 4: Actions

The following actions are recommended to implement the strategies and vision.

Action I.1. Install on-street public bike racks

Rationale

The provision of adequate on-street public bicycle parking makes the use of a bicycle more convenient and safe by making it easier to find locations to secure their bicycles, reducing the risk of bicycle damage, damage to other property, and/or disruptions to pedestrian traffic.

Description

It is recommended that the City of Wichita install bicycle parking facilities consistent with the Delano West Douglas Avenue Bicycle Parking Plan Strategy I: On-Street Bicycle Parking.

Funding Source

It is recommended that the City of Wichita fund the purchase and installation of the public on-street bicycle parking. The installation should be done in phases, as described in Strategy I: On-Street Bicycle Parking. It is also recommended that the Delano CDC and other stakeholders seek non-City contributions to fund the purchase and installation of the bike racks. The non-City funding can be utilized to expedite the purchase and installation of the bicycle racks.

Summary

Action	Lead Organization	Estimated Time to Complete	Estimated Cost
Adopt a Capital Improvement Program (CIP) with a project to fund the installation of the on-street public bike racks	City of Wichita	2 years	None
Install the recommended on-street public bike racks in the prioritized locations using the recommended configurations, and designs.	City of Wichita	9 years	\$60,000
Seek non-City contributions to fund the purchase and installation of the on-street bicycle racks	Delano CDC and other Delano stakeholders	10 years	Unknown



Action II.1. Install public bicycle parking at Lawrence-Dumont Stadium

Rationale

The provision of adequate off-street public bicycle parking at Lawrence-Dumont Stadium will help to ensure that cycling in the Delano area is safe, convenient, and attractive for casual cyclists. The easy to find and secure parking facilities will reduce the risk of bicycle damage, damage to other property, and/or disruptions to pedestrian traffic.

Description

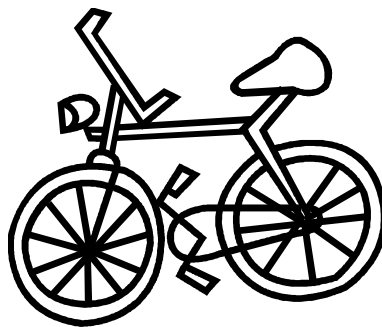
It is recommended that the City of Wichita install 15 contemporary style bicycle racks to accommodate at least 30 bicycles at Lawrence-Dumont Stadium consistent with the Delano West Douglas Avenue Bicycle Parking Plan Strategy II: Off-Street Bicycle Parking.

Funding Source

It is recommended that the City of Wichita fund the installation of off-street bicycle parking at the City owned sites.

Summary

Action	Lead Organization	Estimated Time to Complete	Estimated Cost
Adopt a Capital Improvement Program (CIP) or City of Wichita Budget with a project to fund the installation of the off-street public bike racks at Lawrence-Dumont Stadium	City of Wichita	2 years	None
Install the recommended public off-street bike racks at Lawrence-Dumont Stadium	City of Wichita	Less than six months	\$12,000





Action II.2. Install public bicycle parking at the new Central Branch Library

Rationale

The provision of adequate off-street bicycle parking at the new Central Branch Library will help to ensure that cycling in the Delano area is safe, convenient, and attractive for casual cyclists. The easy to find and secure parking facilities will reduce the risk of bicycle damage, damage to other property, and/or disruptions to pedestrian traffic.

Description

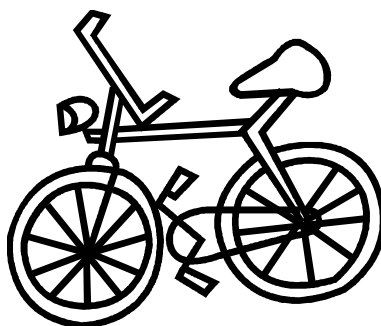
It is recommended that Wichita Library Board and Wichita City Council ensure that final designs for the proposed new Central Branch Library include bicycle parking consistent with the Delano West Douglas Avenue Bicycle Parking Plan Strategy II: Off-Street Bicycle Parking.

Funding Source

It is recommended that the funding sources for the bicycle parking be the same as those to construct the library facility.

Summary

Action	Lead Organization	Estimated Time to Complete	Estimated Cost
Ensure that final designs for the proposed new Central Branch Library include off-street bicycle parking facilities	Wichita Library Board	Unknown	None
Ensure that final designs for the proposed new Central Branch Library include of-street bicycle parking facilities	Wichita City Council	Unknown	None





Action III.1. Report on the status of the Delano West Douglas Avenue Bicycle Parking Plan

Rationale

Periodic public reports on the progress of implementing the Delano West Douglas Avenue Bicycle Parking Plan will help to ensure that the Plan is successfully being implemented and is relevant to the community.

Description

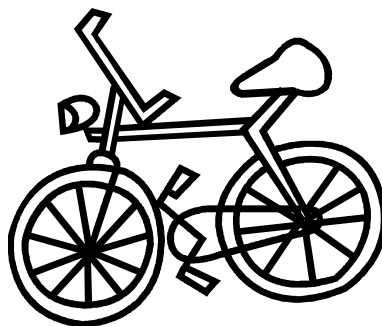
It is recommended that City of Wichita staff develop an annual report on the status of implementing the Delano West Douglas Avenue Bicycle Parking Plan.

Funding Source

No direct funding is necessary to undertake this action, only staff time and related supplies will be necessary.

Summary

Action	Lead Organization	Estimated Time to Complete	Estimated Cost
Produce an annual report on the status of implementing the actions recommended in the Delano West Douglas Avenue Bicycle Parking Plan	City of Wichita	8 hours	None





Action III.2. Review and update the Delano West Douglas Avenue Bicycle Parking Plan

Rationale

A plan is most effective if it reflects the conditions in the community. Over time, conditions and priorities may change. Scheduled reviews and revisions of the Plan help to ensure that the recommended actions take these changes into account.

Description

It is recommended that the Delano West Douglas Avenue Bicycle Parking Plan Steering Committee meet with the Technical Advisory Committee on an annual basis to accomplish the following tasks listed below.

- Review the Plan
- Recommend any necessary Plan revisions to the City Council
- Monitor the Plan implementation progress, including a review of the performance measures listed in Chapter 6

Funding Source

No direct funding is necessary to undertake this action, only staff time and related supplies will be necessary.

Summary

Action	Lead Organization	Estimated Time to Complete	Estimated Cost
Participate in an annual meeting to review the Delano West Douglas Avenue Bicycle Parking Plan document, review the performance measures	Steering Committee	2 hours	None
Organize and participate in an annual meeting to review the Delano West Douglas Avenue Bicycle Parking Plan document and annual report	Technical Advisory Committee	2 hours	None



Chapter 5 Critical Path

The following tables describe the recommended sequence for initiating the Plan action items. The sequencing of actions implementation can be important because it can reduce costs and save time. All of the recommended actions within this plan generally fall into one of two categories: critical path actions and non-critical path actions. The tables below are organized according the two action categories. The critical path actions are presented in the recommended sequential order from first to last. Below is a listing of the table columns headers and what they describe.

- Sequential Order – This indicates the recommended sequential order for initiating the action. A letter follows the numeral if one or more actions are recommended to start around the same period of time.
- Strategy – This shows the number of the strategy associated with the action.
- Action – This is the description of the recommended action.
- Lead Organization – This represents the organization responsible for implementing the action.
- Estimated Time to Complete – This is a rough estimate of the duration of time between the start and completion of the action.
- Estimated Cost – This is a rough cost estimate of costs associated with the action. The costs do not account for the lead organization employee staff time or associated supplies.



Critical Path Actions

Table 4: Actions Critical Path

Sequential Order	Strategy	Action	Lead Organization	Estimated Time to Complete	Estimated Costs
1.a.	I.	Adopt a Capital Improvement Program (CIP) with a project to fund the installation of the on-street public bike racks	City of Wichita	2 years	None
1.b.	I.	Adopt a Capital Improvement Program (CIP) with a project to fund the construction and installation of the unique public on-street bike racks, up to \$400 per rack	City of Wichita	2 years	None
1.c.	I.	Seek non-City contributions to fund the purchase and installation of the on-street bicycle racks	Delano CDC and other Delano stakeholders	10 years	Unknown
1.d.	II.	Adopt a Capital Improvement Program (CIP) or City of Wichita Budget with a project to fund the installation of the public off-street bike racks at Lawrence-Dumont Stadium	City of Wichita	2 years	None
3.	I.	Install the recommended public on-street bike racks in the prioritized locations using the recommended configurations, and designs.	City of Wichita	1 year	\$60,000
6.	II.	Install the recommended public off-street bike racks Lawrence-Dumont Stadium	City of Wichita	Less than six months	\$12,000



Non-Critical Path Actions

Table 5: Non-Critical Path Actions

Sequential Order	Strategy	Action	Lead Organization	Estimated Time to Complete	Estimated Costs
None	II.	Ensure that final designs for the proposed new Central Branch Library include off-street bicycle parking facilities	Wichita Library Board	Unknown	None
None	II.	Ensure that final designs for the proposed new Central Branch Library include of-street bicycle parking facilities	Wichita City Council	Unknown	None
None	III.	Produce an annual report on the status of implementing the actions recommended in the Delano West Douglas Avenue Bicycle Parking Plan	City of Wichita	8 hours	None
None	III.	Participate in an annual meeting to review the Delano West Douglas Avenue Bicycle Parking Plan document, review the performance measures	Steering Committee members	2 hours	None
None	III.	Organize and participate in an annual meeting to review the Delano West Douglas Avenue Bicycle Parking Plan document and annual report	Technical Advisory Committee	2 hours	None



Chapter 6: Performance Measures

The following performance measures should be monitored to determine the amount of progress being made toward achieving the Delano West Douglas Avenue Bicycle Parking Plan vision.

Table 6: Performance Measures

Performance Measure	Baseline Measurement	Performance Target	Data Collection Frequency	Data Collection Responsibility
Percentage of recommended bicycle parking spots provided	0	Provide 100% of recommended bicycle parking spots by 2017	Annually	City of Wichita
Bicycle parking patterns (proper and improper)	Baseline survey needed	No improper bicycle parking	Annually	Delano CDC
Level of bicycle traffic	Baseline survey needed	Perception of increasing traffic	Annually	Delano CDC



Appendix A: Streetscape Design Guidelines Recommended Number of Bicycle Parking Spaces Estimates

Using the formulas provided in the [Downtown Wichita Streetscape Design Guidelines](#), project staff calculated the following estimates for both the acceptable preferred quantities of bicycle parking spaces for each block in the plan area. The calculations are presented in the following tables. Maps representing the number of recommended bicycle parking spots per block face are also included in the following section. Please note that the Draft Downtown Master Plan has identified streets within the Delano West Douglas Bicycle Parking Plan area as future Bicycle Balanced Streets or Transit Balanced Streets. The number of bicycle parking spaces located along either of these street types is increased by a factor of 1.5 (Bicycle / Transit Multiplier).

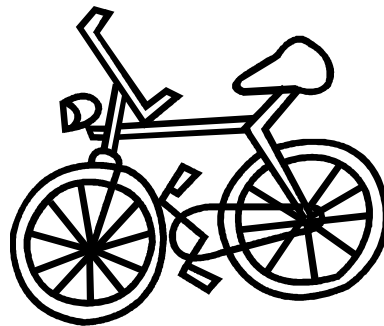




Table 7: Streetscape Design Guidelines Recommended Bicycle Parking Spaces

Street Block	Acceptable Quantity of Bicycle Parking Spaces	Preferred Quantity of Bicycle Parking Spaces	Transit Multiplier	Transit Proposed (1 if yes, 0 if no)	Transit Balanced Street Acceptable Quantity of Bicycle Parking Spaces	Transit Balanced Street Preferred Quantity of Bicycle Parking Spaces
E side of N 100 DODGE	7	9	1.5	0	7	9
E side of N 100 ELIZABETH	0	0	1.5	0	0	0
E side of N 100 EXPOSITION	8	11	1.5	0	8	11
E side of N 100 HANDLEY	4	5	1.5	0	4	5
E side of N 100 MARTINSON	8	11	1.5	0	8	11
E side of N 100 MILLWOOD	9	12	1.5	0	9	12
E side of N 100 OAK	4	5	1.5	0	4	5
E side of N 100 OSAGE	4	5	1.5	0	4	5
E side of N 100 SENECA	7	10	1.5	0	7	10
E side of N 100 SYCAMORE	0	0	1.5	0	0	0
E side of N 100 VINE	4	5	1.5	0	4	5
E side of N 100 WALNUT	4	5	1.5	0	4	5
E side of S 100 DODGE	4	5	1.5	0	4	5
E side of S 100 ELIZABETH	2	4	1.5	0	2	4
E side of S 100 EXPOSITION	4	5	1.5	0	4	5
E side of S 100 FERN	1	3	1.5	0	1	3
E side of S 100 HANDLEY	4	6	1.5	0	4	6
E side of S 100 MARTINSON	4	5	1.5	0	4	5
E side of S 100 MILLWOOD	1	1	1.5	0	1	1
E side of S 100 OAK	4	5	1.5	0	4	5
E side of S 100 OSAGE	8	11	1.5	0	8	11
E side of S 100 SENECA	4	5	1.5	0	4	5
E side of S 100 SYCAMORE	7	10	1.5	0	7	10
E side of S 100 VINE	4	5	1.5	0	4	5



E side of S 100 WALNUT	4	5	1.5	0	4	5
W side of N 100 DODGE	8	11	1.5	0	8	11
W side of N 100 ELIZABETH	4	6	1.5	0	4	6
W side of N 100 EXPOSITION	2	3	1.5	0	2	3
W side of N 100 HANDLEY	4	5	1.5	0	4	5
W side of N 100 MARTINSON	6	8	1.5	0	6	8
W side of N 100 MILLWOOD	4	5	1.5	0	4	5
W side of N 100 OAK	4	5	1.5	0	4	5
W side of N 100 OSAGE	4	5	1.5	0	4	5
W side of N 100 SENECA	6	8	1.5	0	6	8
W side of N 100 SYCAMORE	4	5	1.5	0	4	5
W side of N 100 WALNUT	4	5	1.5	0	4	5
W side of S 100 DODGE	4	5	1.5	0	4	5
W side of S 100 ELIZABETH	4	5	1.5	0	4	5
W side of S 100 EXPOSITION	3	4	1.5	0	3	4
W side of S 100 FERN	3	5	1.5	0	3	5
W side of S 100 HANDLEY	4	5	1.5	0	4	5
W side of S 100 MARTINSON	1	3	1.5	0	1	3
W side of S 100 MILLWOOD	1	1	1.5	0	1	1
W side of S 100 OAK	4	5	1.5	0	4	5
W side of S 100 OSAGE	4	5	1.5	0	4	5
W side of S 100 SENECA	4	5	1.5	0	4	5
W side of S 100 SYCAMORE	4	5	1.5	0	4	5
W side of S 100 WALNUT	4	5	1.5	0	4	5
N side of 1000 DOUGLAS	8	10	1.5	1	12	16
N side of 1100 DOUGLAS	8	10	1.5	1	12	16
N side of 1200 DOUGLAS	8	11	1.5	1	12	16
N side of 1300 DOUGLAS	5	8	1.5	1	7	11
N side of 1400 DOUGLAS	5	7	1.5	1	8	10
N side of 1500 DOUGLAS	10	14	1.5	1	15	21
N side of 1600 DOUGLAS	3	5	1.5	1	5	7
N side of 1700 DOUGLAS	9	12	1.5	1	14	18
N side of 500 DOUGLAS	10	13	1.5	1	15	20



N side of 600 DOUGLAS	8	11	1.5	1	12	16
N side of 700 DOUGLAS	8	11	1.5	1	12	16
N side of 800 DOUGLAS	8	11	1.5	1	12	16
N side of 900 DOUGLAS	8	11	1.5	1	12	16
S side of 1000 DOUGLAS	7	10	1.5	1	11	14
S side of 1100 DOUGLAS	7	10	1.5	1	11	15
S side of 1200 DOUGLAS	7	9	1.5	1	10	14
S side of 1300 DOUGLAS	8	10	1.5	1	11	15
S side of 1400 DOUGLAS	5	8	1.5	1	8	11
S side of 1500 DOUGLAS	5	8	1.5	1	8	12
S side of 1600 DOUGLAS	8	11	1.5	1	12	17
S side of 1700 DOUGLAS	9	12	1.5	1	14	18
S side of 500 DOUGLAS	19	26	1.5	1	29	38
S side of 600 DOUGLAS	8	11	1.5	1	12	16
S side of 700 DOUGLAS	8	11	1.5	1	12	16
S side of 800 DOUGLAS	9	11	1.5	1	13	17
S side of 900 DOUGLAS	8	11	1.5	1	12	16
Lawrence-Dumont Stadium	30	60				
Total Number of Bicycle Parking Spaces	430	603		26	503	682
Number of Bicycle Parking Spaces Per Rack	2	2			2	2
Estimated Number of Bicycle Racks	215	301			252	341
Estimated Total Cost of Bicycle Racks and Installation	\$ 85,986	\$ 120,554			\$ 100,609	\$ 136,426

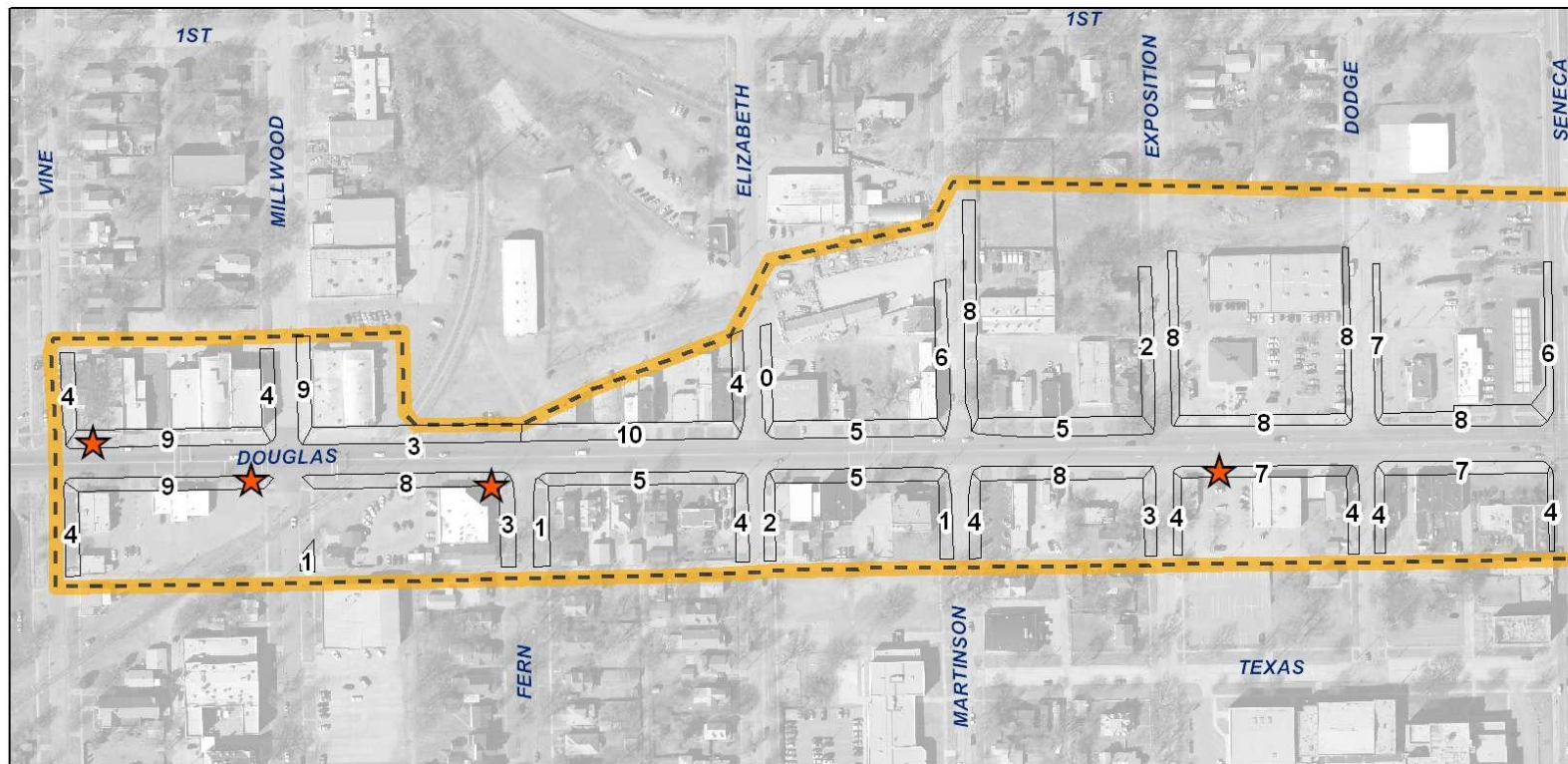


Map 13: Streetscape Design Guideline Recommended Number of Bicycle Parking Spaces per Block - West of Seneca

Delano West Douglas Avenue Bicycle Parking Plan

10/21/2010

Recommended Number of Public Bicycle Parking Spaces Per Block - West of Seneca



Plan Boundary

WTA Proposed Bike Rack Locations



Map 14: Streetscape Design Guidelines Recommended Number of Public Bicycle Parking Spaces per Block - East of Seneca

Delano West Douglas Avenue Bicycle Parking Plan

10/21/2010

Recommended Number of Public Bicycle Parking Spaces Per Block - East of Seneca



Plan Boundary



WTA Proposed Bike Rack Locations



Appendix B: Additional Considerations

During the development of this Plan additional issues were discussed that were determined to be outside the scope of work for this project and may need consideration as part of larger planning efforts, or as future updates are made to this Plan.

Bicycle Parking as Elements of the Delano Overlay Design Guidelines

The Steering Committee reviewed the idea of updating the Delano Overlay Design Guidelines to require that new construction or substantial rehabilitation projects in the plan area provide bicycle parking. The bicycle parking requirement could help to ensure that the availability of bicycle parking meets the demand associated with development, including long-term bicycle parking facilities. The number of bicycle parking spaces required could be assessed according to the zoning district, and a minimum requirement could be established to ensure that every development includes bicycle parking. The number of bicycle parking spaces may allow for the number of required automobile parking spaces to be reduced.

Bicycle Parking Education

The Steering Committee also identified a need for educational information about bicycle parking. The information could be distributed in print, on Channel 7, and through educational training sessions. The educational information will help to ensure that bicycles are parked so that they are more secure, do not block pedestrian traffic, create a hazard, and/or do not damage property.

Improve Safety of Cyclists to Access Delano Bicycle Parking




It was observed that the on-street parking front-in angled parking along West Douglas Avenue does result in significant blind spots while trying to reverse out of the parking spot. The blind spots combined maneuvers required to reverse the car out of the parking space increases the potential for automobile and bicycle crashes. Additional studies could be done to identify methods to reduce the crash potential, including changing the front in parking to back-in angled parking.

Douglas Avenue Delano Streetscape Artwork



The streetscape designs completed in 2002 by Mcluggage Van Sickle and Perry identified locations for two entry arches and multiple locations for interpretative markers. Although outside the scope of this planning initiative, the Steering Committee encourages the City to fund the creation and installation of these important streetscape elements.







Appendix C: Bicycle Rack Costs

Image	Style	Company	Series	Model Number	Color	Mount Type	Item Cost / Unit	Quote Date
	Traditional	Victor Stanley	Cycle Sentry	BRNS-201	Black	either	\$148	5/3/2010
	Traditional	Victor Stanley	Cycle Sentry	BRWS-101	Black	either	\$148	5/3/2010
	Traditional	Victor Stanley	Cycle Sentry	BRNS-301	Black	either	\$148	5/3/2010



	Traditional	Madrax	Classic Bollard with Ball Cap	Bike Bollard	Black	either	\$219	5/4/2010
	Contemporary	Madrax	Orion	Orion Square	Stainless	In ground	\$599	5/4/2010
	Contemporary	Madrax	Orion	Orion Square	Stainless	Surface	\$739	5/4/2010
	Contemporary	Landscape Forms	Ring	Ring	Black	Either	\$250	5/3/2010



	Contemporary	Landscape Forms	Bola	Bola	Black	Either	\$195	5/3/2010
	Artistic	Madrax	Highwheeler	Highwheeler	Stainless	In ground	\$799	5/3/2010
	Artistic	Madrax	Highwheeler	Highwheeler	Stainless	surface	\$849	5/3/2010
	Artistic	Madrax	Cycbicrac	Cycbicrac	Stainless	In ground	\$1,149	5/3/2010



Works Cited

Association of Pedestrian and Bicycle Professionals. (2002, Spring). *Bicycle Parking Guidelines; A Set of Recommendations from the Association of Pedestrian and Bicycle Professionals*. Retrieved October 15, 2010, from Association of Pedestrian and Bicycle Professionals:

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U.S. Green Building Council. (2009). *LEED 2009 for New Construction and Major Rennovations*. Retrieved October 15, 2010, from U.S. Green Building Council:

<http://www.usgbc.org/ShowFile.aspx?DocumentID=7244>